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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/998,750	11/30/2001	Judith A. Bayer	9998	7009
26890	7590	10/02/2007		
JAMES M. STOVER TERADATA CORPORATION 1700 SOUTH PATTERSON BLVD, WHQ5 DAYTON, OH 45479			EXAMINER LASTRA, DANIEL	
			ART UNIT 3622	PAPER NUMBER
			MAIL DATE 10/02/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/998,750

Applicant(s)

BAYER ET AL.

Examiner

DANIEL LASTRA

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-21 have been examined. Application 09/998,750 (AUTOMATED PROMOTION RESPONSE MODELING IN A CUSTOMER RELATIONSHIP MANAGEMENT SYSTEM) has a filing date 11/30/2001.

Response to Amendment

2. In response to Final Rejection filed 04/03/2007, the Applicant filed an RCE on 07/03/2007, which amended claims 1, 8 and 15.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Cook (US 6,631,360).

Claim 1, Cook teaches:

A computer-implemented method of creating customer promotion response models for use in customer relationship marketing, comprising.

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(a) defining an input data set for the response models, wherein the input data set is comprised of one or more Analytic Variables that *include both primitives* (see col 9, lines 35-45; col 12, lines 5-30; "data source, such as buy or no buy data") *and conditions that describe how the Analytical Variables are derived from operational data* (col 12, lines 5-30; categories of said data source), *and wherein the Analytic Variables* are subdivided into independent and dependent variables (see col 12, lines 17-22) ;

(b) splitting the input data set into a test sample and a validation sample (see col 10, line 55 – col 11, line 20);

(c) identifying related independent and dependent variables using the test sample (see col 12, lines 5-45);

(d) identifying a Transformation Type for each of the identified related independent and dependent variables (see col 11, lines 20-65 "estimated density function");

(e) estimating a Coefficient for each of the identified related independent and dependent variables (see col 14, lines 55-65 "each element in a decision array there is a gain or loss");

(f) generating a Model Equation for each of the identified related independent and dependent variables using the identified Transformation Type and estimated Coefficient (see col 13, lines 5-45 "Gaussian Density function");

(g) validating the generated Model Equation by applying it to the validation sample (see col 11, lines 5-20 "calibration"; and

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(h) scoring customers retrieved from a database using the validated Model Equation as a customer promotion response model for use in customer relationship marketing (see col 11, lines 50-67).

Claim 2, Cook teaches:

The method of claim 1, wherein the Transformation Type is a mathematical operation that identifies an association between the identified related independent and dependent variables (see col 12, lines 5-45).

Claim 3, Cook teaches:

The method of claim 1, wherein the Coefficient is a relative measure of the identified related independent and dependent variables contributions to a likelihood of response (see col 12, lines 5-20; col 13, lines 25-45).

Claim 4, Cook teaches:

The method of claim 1, wherein the Coefficient's sign indicates whether the independent variable is positively or negatively correlated with the dependent variable (see col 14, lines 55-65; "gain or loss").

Claim 5, Cook teaches:

The method of claim 1, wherein the Model Equation is a mathematical representation of the association of the identified related independent and dependent variables that result in the statistical best fit of known responders versus non-responders (see col 12, lines 5-12).

Claim 6, Cook teaches:

The method of claim 1, wherein the validating step (g) further comprises applying the generated Model Equation to the validation sample in order to predict a likelihood of response as compared to an actual response in the validation sample (see col 11, lines 5-20; col 13, lines 5-45).

Claim 7, Cook teaches:

The method of claim 1, wherein the scoring step (h) further comprises applying the validated Model Equation to the customers retrieved from the database in order to predict responses from the customers in a future promotional campaign (see col 11, lines 50-65; col 13, lines 5-45).

Claims 8-14 are written as system claims but contains the same limitations as claims 1-7, therefore, the same rejection is applied.

Claims 15-21 are written as article of manufacturer claims but contains the same limitations as claims 1-7, therefore, the same rejection is applied.

Response to Arguments

4. Applicant's arguments filed 07/13/2007 have been fully considered but they are not persuasive. The Applicant argues that Cook does not teach "defining an input data set for the response models, wherein the input data is comprised of one or more Analytical Variables that include both primitives and conditions that describe how the Analytical Variables are derived from operational data and wherein the Analytical variables are subdivided into independent and dependent variables". The Examiner answers that Applicant's specification page 6 defines said limitation by mentioning that "primitive variables" are based variables in transaction data, such as "sales" and

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"condition variables" are simply the categories where said variables corresponds, such as "Department = Merchandise". Cook teaches using base variables data source, such as buy or not buy data and classifying said data in categories in order to forecast the buy/not buy response of users (see col 12, lines 1-30). Furthermore, Cook teaches that that data source may include independent (*i.e.* profile features such as buy or not buy) and dependent variables (*i.e.* category into which a profile individual falls) (see col 12, lines 10-30). Therefore, contrary to Applicant's argument, Cook teaches Applicant's claimed limitation.

The Applicant argues that Cook does not teach "splitting the input data set into a test sample and validation sample". The Examiner answers that Cook teaches identifying a data source (*i.e.* test sample) and a training sample (*i.e.* validation sample) (see col 12, lines 25-35). Therefore, contrary to Applicant's argument, Cook teaches Applicant's claimed limitation.

The Applicant argues that Cook does not teach "identifying related independent and dependent variables using the test sample". The Examiner answers that Cook teaches that the data source includes independent and dependent variables (see col 12, lines 15-25). Therefore, contrary to Applicant's claimed invention, Cook teaches Applicant's claimed limitation.

The Applicant argues that Cook does not teach "identifying a transformation type". The Examiner answers that Cook teaches probability density functions that results in normal or quadratic decision surfaces (see col 10, lines 1-10). Therefore, contrary to Applicant's argument, Cook teaches Applicant's claimed limitation.

The Applicant argues that Cook does not teach “estimating a coefficient for the identified related independent and dependent variables”. The Examiner answers that Cook figures 12 and 13 teach estimating coefficients (i.e. density value) for each independent and dependent variable of said graph. Therefore, contrary to Applicant’s argument, Cook teaches Applicant’s claimed limitation.

The Applicant argues that Cook does not teach “a model equation”. The Examiner answers that Cook teaches a inference engine, which are algorithms that calculate how independent variables for a given category are distributed according to some probability density function (see col 10, lines 1-10). Therefore, contrary to Applicant’s argument, Cook teaches a “model equation”.

The Applicant argues that Cook does not teach “validating the generated Model Equation by applying it to validation sample”. The Examiner answers that Cook teaches performing a calibration process to determine the accuracy of a forecast (see col 11, lines 5-20). Therefore, contrary to Applicant’s argument, Cook teaches Applicant’s claimed invention.

The Applicant argues that Cook does not teach “scoring customers retrieved from a database using a Model Equation”. The Examiner answers that Cook figures 12 and 13 teach determining the relative density value (i.e. score) for each individual category, feature and category. Therefore, contrary to Applicant’s argument, Cook teaches Applicant’s claimed limitation.

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Conclusion


5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL LASTRA whose telephone number is 571-272-6720 and fax 571-273-6720. The examiner can normally be reached on 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, ERIC W. STAMBER can be reached on 571-272-6724. The official Fax number is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DL

Daniel Lastra
September 15, 2007


RAQUEL ALVAREZ
PRIMARY EXAMINER